APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER
COUSO, J

ART UNIT	PAPER NUMBER
2621	5

DATE MAILED:

02/27/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

1) ☒ Responsive to communication(s) filed on _01 January 2001_ .

2a) ☐ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-15_ is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) _2-8,11 and 13-15_ is/are allowed.

6) ☒ Claim(s) _1,9,10 and 12_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

  a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:

  1. ☐ received.

  2. ☐ received in Application No. (Series Code / Serial Number) _____ .

  3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

14) ☒ Notice of References Cited (PTO-892)		17) ☐ Interview Summary (PTO-413) Paper No(s). _____ .	
15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)		18) ☐ Notice of Informal Patent Application (PTO-152)	
16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .		19) ☐ Other: .	

1.   Applicant's arguments with respect to claims 1, 9-10 and 12 have been

considered but are moot in view of the new ground(s) of rejection.

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the
> United States before the invention thereof by the applicant for patent, or on an international application
> by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
> title before the invention thereof by the applicant for patent.

3.   Claims 1, 9-10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated

by Malvar et al. (U. S. Patent No. 5,805,739).

Malvar discloses a lapped orthogonal vector quantization system.

With regard to claim 1, Malvar describes an apparatus for block encoding of

windows of digitally represented images comprising a chain of lattices of lapped

transforms with dyadic rational lifting steps (see figures 1-3, and refer for example to

column 4, line 5 through column 6, line 55).

In regard to claim 9, Malvar describes an apparatus for transforming M x M

blocks of digital image intensities comprising lapped transforms with overlapping factor

K and having butterfly structures and lifting steps to generate M-channel uniform linear

phase perfect reconstruction filter banks (see figures 1-3, and refer for example to

column 4, line 5 through column 6, line 55).

With regard to claim 10, Malvar describes K to be equal 2 (see figures 1-3, and

refer for example to column 4, line 5 through column 6, line 55).

In regard to claim 12, Malvar describes a method of block coding windows of

digitally represented images comprising successive steps of processing the output of

each step through a following step in a chain of lattices of lapped transforms with dyadic rational lifting steps (see figures 1-3, and refer for example to column 4, line 5 through column 6, line 55).

4.   Claims 1, 9-10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Gabriel (U.S. Patent No. 5,973,755).

Gabriel discloses a video encoder and decoder using bilinear motion compensation and lapped orthogonal transforms.

With regard to claim 1, Gabriel describes an apparatus for block encoding of windows of digitally represented images comprising a chain of lattices of lapped transforms with dyadic rational lifting steps (see figures 3-5 and 7, and refer for example to column 4, line 65 through column 7, line 25).

In regard to claim 9, Gabriel describes an apparatus for transforming M x M blocks of digital image intensities comprising lapped transforms with overlapping factor K and having butterfly structures and lifting steps to generate M-channel uniform linear phase perfect reconstruction filter banks (see figures 3-5 and 7, and refer for example to column 4, line 65 through column 7, line 25).

With regard to claim 10, Gabriel describes K to be equal 2 (see figures 3-5 and 7, and refer for example to column 4, line 65 through column 7, line 25).

In regard to claim 12, Gabriel describes a method of block coding windows of digitally represented images comprising successive steps of processing the output of each step through a following step in a chain of lattices of lapped transforms with dyadic rational lifting steps (see figures 3-5 and 7, and refer for example to column 4, line 65 through column 7, line 25).

5.   Claims 1, 9-10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Hou (U. S. Patent No. 5,859,788).

Hou discloses a modulated lapped transform method.

With regard to claim 1, Hou describes an apparatus for block encoding of windows of digitally represented images comprising a chain of lattices of lapped transforms with dyadic rational lifting steps (see figures 2-13, and refer for example to column 8, line 61 through column 23, line 58).

In regard to claim 9, Hou describes an apparatus for transforming M x M blocks of digital image intensities comprising lapped transforms with overlapping factor K and having butterfly structures and lifting steps to generate M-channel uniform linear phase perfect reconstruction filter banks (see figures 2-13, and refer for example to column 8, line 61 through column 23, line 58).

With regard to claim 10, Hou describes K to be equal 2 (see figures 2-13, and refer for example to column 8, line 61 through column 23, line 58).

In regard to claim 12, Hou describes a method of block coding windows of digitally represented images comprising successive steps of processing the output of each step through a following step in a chain of lattices of lapped transforms with dyadic rational lifting steps (see figures 2-13, and refer for example to column 8, line 61 through column 23, line 58).

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Liu et al., Sudharsanan et al., Heusdens, Kalker, Vermeer and Nayebi et al. all disclose systems similar to applicant's claimed invention.

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jose L. Couso whose telephone number is (703) 305-4774. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau can be reached on (703) 305-4706. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-9051 for regular communications and (703) 308-6296 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8576.

JOSE L. COUSO
PRIMARY EXAMINER

Jlc
February 23, 2001